

Mouse anti-Human ALDH1A1 Monoclonal Antibody | anti-ALDH1A1 antibody

Anti-ALDH1A1 Antibody (PE), Mouse Monoclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA255411	Mouse	Human	Flow Cytometry, Functional Assay

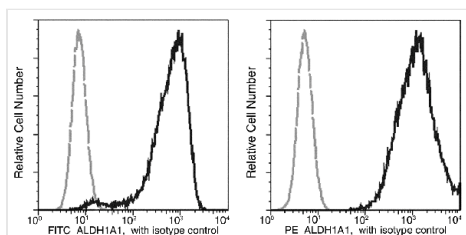
PRODUCT SYNONYMS

ALDH1A1; Monoclonal Antibody; Anti-ALDH1A1 Antibody (PE); Mouse Monoclonal; ALDH1A1/ALDH1 Antibody (PE); Mouse MAb; aldehyde dehydrogenase 1 family; member A1; Anti-ALDC Antibody; Anti-ALDH-E1 Antibody; Anti-ALDH1 Antibody; Anti-ALDH11 Antibody; Anti-HEL-9 Antibody; Anti-HEL-S-53e Antibody; Anti-HEL12 Antibody; Anti-PUMB1 Antibody; Anti-RALDH1 Antibody; anti-ALDH1A1 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	03
Specificity	Human ALDH1A1/ALDH1
Purity/Purification	Protein A
Form/Format	PBS solution containing 0.5% BSA and 0.03% ProClin300
Concentration	5ul/Test, 0.1mg/ml (varies by lot)
Applicable Applications for anti-ALDH1A1 antibody	FCM/FACS (Flow Cytometry)
Immunogen	Recombinant Human ALDH1A1 / ALDH1 protein (Catalog#)
Reagents	PE-conjugated Mouse monoclonal antibody
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, recombinant Human ALDH1A1 / ALDH1 (rh ALDH1A1 / ALDH1; Catalog# NP_000680.2; Ser2-Ser501) and conjugated with PE under optimum conditions, the unreacted PE was remove.
Preparation and Storage	This antibody can be stored at 2°C-8°C for twelve months without detectable loss of activity. Protected from prolonged exposure to light. Do not freeze

IMAGES



Application Data

Profile of anti-Human ALDH1A1 reactivity on A549 cells analyzed by flow cytometry. Flow cytometry was performed on a BD FC Calibur flow cytometry system.

ADDITIONAL INFORMATION

Related Product Information for anti-ALDH1A1 antibody	Aldehyde dehydrogenase 1 family, member A1 (ALDH1A1), also known as Aldehyde dehydrogenase 1 (ALDH1), or Retinaldehyde Dehydrogenase 1 (RALDH1), is an enzyme that is expressed at high levels in stem cells and that has been suggested to regulate stem cell function. The retinaldehyde dehydrogenase (RALDH) subfamily of ALDHs, composed of ALDH1A1, ALDH1A2, ALDH1A3, and ALDH8A1, regulate development by catalyzing retinoic acid biosynthesis. The ALDH1A1 protein belongs to the aldehyde dehydrogenases family of proteins. Aldehyde dehydrogenase is the second enzyme of the major oxidative pathway of alcohol metabolism. ALDH1A1 also belongs to the group of corneal crystallins that help maintain the transparency of the cornea. Increased ALDH1A1 activity has been found in the stem cell populations of leukemia and some solid tumors. In tumor specimens, increased ALDH1A1 immunopositivity was found not only in secretory type cancer epithelial cells but also in neuroendocrine tumor populations. ALDH1 has been identified as a reliable marker of breast cancer stem cells. ALDH1 expression in primary cancer is an independent prognostic factor in node-positive breast cancer patients. ALDH1A1 plays a key role in normal hematopoiesis, and as a TLX1 transcriptional target, ALDH1A1 may contribute to the ability of this homeoprotein to alter cell fate and induce tumor growth.
References	Li T, et al. (2010). ALDH1A1 is a marker for malignant prostate stem cells and predictor of prostate cancer patients' outcome. Lab Invest. 90(2): 234-44.Levi BP, et al. (2009) Aldehyde dehydrogenase 1a1 is dispensable for stem cell function in the mouse hematopoietic and nervous systems. Blood. 113(8): 1670-80.Rahman FB, et al. (2006) Uncompetitive inhibition of Xenopus laevis aldehyde dehydrogenase 1A1 by divalent cations. Zoolog Sci. 23(3): 239-44.Jester JV, et al. (1999). The cellular basis of corneal transparency: evidence for corneal crystallins. J Cell Sci. 112 (Pt 5): 613-22.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361176
NCBI GeneID	216
NCBI Accession #	NP_000680.2
NCBI GenBank Nucleotide #	NM_000689.4
UniProt Accession #	P00352; O00768; Q5SYR1
Molecular Weight	54,862 Da
NCBI Official Full Name	retinal dehydrogenase 1
NCBI Official Synonym Full Names	aldehyde dehydrogenase 1 family, member A1
NCBI Official Symbol	ALDH1A1
NCBI Official Synonym Symbols	ALDC; ALDH1; HEL-9; HEL12; PUMB1; ALDH11; RALDH1; ALDH-E1; HEL-S-53e
NCBI Protein Information	retinal dehydrogenase 1; ALDH class 1; ALHDII; RALDH 1; acetaldehyde dehydrogenase 1; aldehyde dehydrogenase 1, soluble; aldehyde dehydrogenase, liver cytosolic; epididymis luminal protein 12; epididymis luminal protein 9; epididymis secretory sperm bindi
UniProt Protein Name	Retinal dehydrogenase 1
UniProt Gene Name	ALDH1A1
UniProt Synonym Gene Names	ALDC; ALDH1; PUMB1; RALDH 1; RaLDH1
UniProt Entry Name	AL1A1_HUMAN

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